WEST Search History

DATE: Tuesday, December 09, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L3	L2 same (key or cipher)	11	L3
L2	L1 same encod$3	41	L2
L1	generat$3 with watermark with bit	152	L1

END OF SEARCH HISTORY

Google Advanced Search Preferences Language Tools Search Tips

"watermark bit" encoding scrambling Google Search

Web Images Groups Directory News

Searched the web for "watermark bit" encoding scrambling. Results 1 - 5 of 5. Search took 0.08 seconds.

[PDF] "FRAGILE WATERMARKING OF THREE-DIMENSIONAL OBJECTS"
File Format: PDF/Adobe Acrobat - View as HTML
... ii) that decoding is based on a verification key, and (iii) that **encoding** is based ... the bit K p . This bit value should match the **watermark bit** at location ...
clip.informatik.uni-leipzig.de/ ~toelke/Watermark/ta10_12.pdf - Similar pages

[PDF] An introduction to digital watermarking & its applications
File Format: PDF/Adobe Acrobat - View as HTML
... Basic watermarking model **Encoding**, error correction, modulation Payload (P) (n bits ... 1012 frames for DVD video) Fixed cover, random **watermark Bit** error rate ...
www.isg.rhul.ac.uk/msc/teaching/ opt5/slides/watermarking.pdf - Similar pages

[PDF] Optimal differential energy watermarking of DCT encoded images ...
File Format: PDF/Adobe Acrobat - View as HTML
... blocks used to embed a single **watermark bit**, and the ... maximizing the robustness against re-**encoding** and for ... protection of the data through **scrambling** or encryp ...
www-it.et.tudelft.nl/~inald/pubs/Watermarking/ Optimal%20differential%20energy%20watermarking%202001.pdf - Similar pages

SPIE Proceedings Vol. 4314
... To retrieve the embedded **watermark bit**, the block in the ... **Scrambling** is a common approach used by conditional access ... uses the same key for **encoding** and decoding ...
www.spie.org/web/abstracts/4300/4314.html - 101k - Cached - Similar pages

[PDF] Stavanger University College
File Format: PDF/Adobe Acrobat - View as HTML
... first be modified. DRM-system provides several forms of **encoding** methods, and these depend on the value of the media. One form is ...
www1.his.no/prosjekt/sikt/ SIKT-rapporter%5CSIKT-report-no4-140802ok.pdf - Similar pages

"watermark bit" encoding scrambling Google Search Search within results

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"watermark bit" encoding chaotic [Google Search]

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Searched the web for "watermark bit" encoding chaotic. Results 1 - 8 of about 10. Search took 0.17 seconds.

[PDF] "FRAGILE WATERMARKING OF THREE-DIMENSIONAL OBJECTS"
File Format: PDF/Adobe Acrobat - View as HTML
... ii) that decoding is based on a verification key, and (iii) that **encoding** is based ... the bit K p . This bit value should match the **watermark bit** at location ...
clip.informatik.uni-leipzig.de/ ~toelke/Watermark/ta10_12.pdf - Similar pages

Citations: Rotation, scale and translation invariant digital ...
... This is done when the corresponding **watermark bit** equals 1 ... decoding, labeling and finally re **encoding** the data ... **Chaotic** Watermarks for Embedding in the Spatial ...
citeseer.nj.nec.com/context/461510/183296 - 27k - Cached - Similar pages

[PDF] CMK_D54_final 1 Project Number: IST- 1999 - 10987 Project Title: ...
File Format: PDF/Adobe Acrobat - View as HTML
... error rate using **chaotic** maps (AUTh) ....15 ... depending on the **encoding** bit rate ... watermarked, the effective **watermark bit** rate (ie ...
vision.unige.ch/certimark/public/ DOCS/deliverable/CMK_D54.pdf - Similar pages

SPIE Proceedings Vol. 3657
... 44) * Digital watermarking systems with **chaotic** sequences (Paper ... of the quantizer used in re-**encoding**, the number ... used to embed a single **watermark bit**, and the ...
www.spie.org/web/abstracts/3600/3657.html - 86k - Cached - Similar pages

[PDF] IMP/I4062/a ? 1999 Imprimatur Services Ltd file:4079.doc 1 ...
File Format: PDF/Adobe Acrobat - View as HTML
... 1 xS 2 ; a spatial transformation called toral automorphism is iteratively applied, producing a watermark of size M 1 xM 2 presenting a **chaotic** reallocation of ...
www.imprimatur.net/IMP_FTP/about_watermarking.pdf - Similar pages

[PDF] IMP/I4062/a file:4062a.doc 1 IMPRIMATUR Workpackage 4 ...
File Format: PDF/Adobe Acrobat - View as HTML
... in that once the codemark is known, it is much easier for an attacker to remove it or to make it unreadable, for example by inverting the **encoding** process or ...
www.imprimatur.net/IMP_FTP/watermarking.pdf - Similar pages

[PDF] Multimedia watermarking techniques - Proceedings of the IEEE
File Format: PDF/Adobe Acrobat - View as HTML
... pseudorandom signal with low amplitude, compared to the image amplitude, and usually with spatial distribution of one information (ie, **watermark**) **bit** over many ...
www.lnt.de/~hartung/ProcIEEEHartungKutter.pdf - Similar pages

[PS] Error-correction using Low-Density
File Format: Adobe PostScript - View as Text
... When used in turbo **encoding**, the systematic bits produced by one of the convolutional ... 5 we present evidence that such feedback can lead to **chaotic** dynamics in ...
www.inference.phy.cam.ac.uk/ mcdavey/papers/davey_phd.ps - Similar pages

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the 8 already displayed.
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"watermark bit" encoding chaotic | Google Search | Search within results

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Searched the web for "watermark bit" encoding "digital signal". Results 1 - 7 of about 8. Search took 0.15 seco

[PDF] Digital Audio Watermarking
File Format: PDF/Adobe Acrobat - View as HTML
1 Digital Audio Watermarking E4810 – **Digital Signal** Processing December 12 ... which
was used to do the **encoding**. ... then the encoded **watermark bit** is interpreted as ...
www.ee.columbia.edu/~dpwe/e4810/projects/pbc2003/
dsp_project/dsp_project_final.pdf - Similar pages

[PDF] Digital Watermarking of Audio Signals using a Psychoacoustic A
File Format: PDF/Adobe Acrobat - View as HTML
... This information is useful for other applications involving auditory models.
The spread spectrum **encoding** and decoding processes are then presented. ...
web.media.mit.edu/~rago/publications/ragoAES1999.pdf - Similar pages

[PDF] Scalar costa scheme for information embedding - Signal Processing ...
File Format: PDF/Adobe Acrobat - View as HTML
... In Section II, SCS is derived formally, and the **encoding** and decoding process is
outlined. Theoretical performance limits of SCS are derived in Section III. ...
www.stanford.edu/~bgirod/pdfs/EggersTrans_SP2003.pdf - Similar pages

[PDF] Joachim J. Eggers Telecommunications Laboratory University of ...
File Format: PDF/Adobe Acrobat - View as HTML
... For (A), coded modulation is applied for a rate of 1 **watermark bit** per host-data
element, which is interesting for information-hiding applica- tions. ...
www.lnt.de/~eggers/texte/ei2001.pdf - Similar pages

[PDF] Multimedia watermarking techniques - Proceedings of the IEEE
File Format: PDF/Adobe Acrobat - View as HTML
... pseudorandom signal with low amplitude, compared to the image amplitude, and usually
with spatial distribution of one information (ie, **watermark) bit** over many ...
www.lnt.de/~hartung/ProcIEEEHartungKutter.pdf - Similar pages

SPIE Proceedings Vol. 4314
... To retrieve the embedded **watermark bit**, the block in ... which uses different keys for
encoding and decoding ... so far used either **digital signal** processing software ...
www.spie.org/web/abstracts/4300/4314.html - 101k - Cached - Similar pages

[PDF] Stavanger University College
File Format: PDF/Adobe Acrobat - View as HTML
... first be modified. DRM-system provides several forms of **encoding** methods,
and these depend on the value of the media. One form is ...
www1.his.no/prosjekt/sikt/ SIKT-rapporter%5CSIKT-report-no4-140802ok.pdf - Similar pages

In order to show you the most relevant results, we have omitted some entries very similar to the 7 already displayed.
If you like, you can repeat the search with the omitted results included.

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Claims 20-22

US-PAT-NO: 5862260

DOCUMENT-IDENTIFIER: US 5862260 A

TITLE: Methods for surveying dissemination of proprietary empirical data

---------- KWIC ---------

US Patent No. - PN (1):
5862260

Detailed Description Text - DETX (364):
It will be appreciated that the creators of objects 1006 having embedded URL addresses or indices (which objects may be referred to as "hot objects") and the manufacturers hoping to advertise their goods and services can now spread their creative content like dandelion seeds in the wind across the WWW, knowing that embedded within those seeds are links back to their own home page.

Detailed Description Text - DETX (372):
It will be appreciated that the present embodiment provides an immediate and common sense mechanism whereby some of the fundamental building blocks of the WWW, namely images and sound, can also become hot links to other web sites. Also, the programming of such hot objects can become fully automated merely through the distribution and availability of images and audio. No real web site programming is required. The present embodiment provides for the commercial use of the WWW in such a way that non-programmers can easily spread their message merely by creating and distributing creative content (herein, hot

objects). As noted, one can also transition web based hot links themselves from a more arcane text based interface to a more natural image based interface.

Detailed Description Text - DETX (420):

FIG. 29 shows the example of six spots in each quadrant along the 45 degree lines, 1002. These are exaggerated in this figure, in that these spots would be difficult to discern by visual inspection of the UV plane image. A rough depiction of a "typical" power spectrum of an arbitrary image as also shown, 1004. This power spectrum is generally as unique as images are unique. The subliminal graticules are essentially these spots. In this example, there are six spatial frequencies combined along each of the two 45 degree axes. The magnitudes of the six frequencies can be the same or different (we'll touch upon this refinement later). Generally speaking, the phases of each are different from the others, including the phases of one 45 degree axis relative to the other. FIG. 31 depicts this graphically. The phases in this example are simply randomly placed between PI and -PI, 1008 and 1010. Only two axes are represented in FIG. 31--as opposed to the four separate quadrants, since the phase of the mirrored quadrants are simply PI/2 out of phase with their mirrored counterparts. If we turned up the intensity on this subliminal graticule, and we transformed the result into the image domain, then we would see a weave-like cross-hatching pattern as related in the caption of FIG. 29. As stated, this weave-like pattern would be at a very low intensity when added to a given image. The exact frequencies and phases of the spectral components utilized would be stored and standardized. These will become the "spectral

signatures" that registration equipment and reading processes will seek to measure.

Detailed Description Text - DETX (423):

Moving on to the gross summary of how the whole process works, the graticule type of FIG. 29 facilitates an image processing search which begins by first locating the rotation axes of the subliminal graticule, then locating the scale of the graticule, then determining the origin or offset. The last step here identifies which axes is which of the two 45 degree axes by determining phase. Thus even if the image is largely upside down, an accurate determination can be made. The first step and the second step can both be accomplished using only the power spectrum data, as opposed to the phase and magnitude. The phase and magnitude signals can then be used to "fine tune" the search for the correct rotation angle and scale. The graticule of FIG. 30 switches the first two steps above, where the scale is found first, then the rotation, followed by precise determination of the origin. Those skilled in the art will recognize that determining these outstanding parameters, along two axes, are sufficient to fully register an image. The "engineering optimization challenge" is to maximize the uniqueness and brightness of the patterns relative to their visibility, while minimizing the computational overhead in reaching some specified level of accuracy and precision in registration. In the case of exposing photographic film and paper, clearly an additional engineering challenge is the outlining of economic steps to get the patterns exposed onto the film and paper in the first place, a challenge which has been addressed in previous sections.

Detailed Description Text - DETX (427):

FIG. 33 depicts the first major "search" step in the registration process for graticules of the type in FIG. 29. A suspect image (or a scan of a suspect photograph) is first transformed in its fourier representation using well known 2D FFT routines. The input image may look like the one in FIG. 36, upper left image. FIG. 33 conceptually represents the case where the image and hence the graticules have not been rotated, though the following process fully copes with rotation issues. After the suspect image has been transformed, the power spectrum of the transform is then calculated, being simply the square root of the addition of the two squared moduli. It is also a good idea to perform a mild low pass filter operation, such as a 3.times.3 blur filter, on the resulting power spectrum data, so that later search steps don't need incredibly fine spaced steps. Then the candidate rotation angles from 0 through 90 degrees (or 0 to PI/2 in radian) are stepped through. Along any given angle, two resultant vectors are calculated, the first is the simple addition of power spectrum values at a given radius along the four lines emanating from the origin in each quadrant. The second vector is the moving average of the first vector. Then, a normalized power profile is calculated as depicted in both 1022 and 1024, the difference being that one plot is along an angle which does not align with the subliminal graticules, and the other plot does align. The normalization stipulates that the first vector is the numerator and the second vector is the denominator in the resultant vector. As can be seen in FIG. 33, 1022 and 1024, a series of peaks (which should be "six" instead of "five" as is drawn) develops when the angle aligns along its proper direction. Detection of

these peaks can be effected by setting some threshold on the normalized values, and integrating their total along the whole radial line. A plot, 1026, from 0 to 90 degrees is depicted in the bottom of FIG. 33, showing that the angle 45 degrees contains the most energy. In practice, this signal is often much lower than that depicted in this bottom figure, and instead of picking the highest value as the "found rotation angle," one can simply find the top few candidate angles and submit these candidates to the next stages in the process of determining the registration. It can be appreciated by those practiced in the art that the foregoing was simply a known signal detection scheme, and that there are dozens of such schemes that can ultimately be created or borrowed. The simple requirement of the first stage process is to whittle down the candidate rotation angles to just a few, wherein more refined searches can then take over.

Detailed Description Text - DETX (433):

In another variant embodiment, the graticule energy is not concentrated around the 45 degree angles in the spatial frequency domain. (Some compression algorithms, such as JPEG, tend to particularly attenuate image energy at this orientation.) Instead, the energy is more widely spatially spread. FIG. 29A shows one such distribution. The frequencies near the axes, and near the origin are generally avoided, since this is where the image energy is most likely concentrated.

Detailed Description Text - DETX (465):

The illustrated encoder 2036 operates on digitized voice data, auxiliary data, and pseudo-random noise (PRN) data. The digitized voice data is applied

at a port 2040 and is provided, e.g., from A/D converter 2018. The digitized voice may comprise 8-bit samples. The auxiliary data is applied at a port 2042 and comprises, in one form of the technology, a stream of binary data uniquely identifying the telephone 2010. (The auxiliary data may additionally include administrative data of the sort conventionally exchanged with a cell site at call set-up.) The pseudo-random noise data is applied at a port 2044 and can be, e.g., a signal that randomly alternates between "-1" and "1" values. (More and more cellular phones are incorporating spread spectrum capable circuitry, and this pseudo-random noise signal and other aspects of this technology can often "piggy-back" or share the circuitry which is already being applied in the basic operation of a cellular unit).

Other Reference Publication - OREF (52):
Luc, "Analysis of Spread Spectrum System Parameters for Design of Hidden Transmission," Radioengineering, vol. 4, No. 2, Jun. 1995, pp. 26-29.

Other Reference Publication - OREF (98):
Pickholtz et al., "Theory of Spread-Spectrum Communications--A Tutorial," Transactions on Communications, vol. COM-30, No. 5, May, 1982, pp. 855-884.

Other Reference Publication - OREF (107):
Cox et al., "A Secure, Imperceptable Yet Perceptually Salient, Spread Spectrum Watermark for Multimedia," IEEE, Southcon/96, Conference Record, pp. 192-197, 1996.

Other Reference Publication - OREF (111):
Cox et al., "Secure Spread Spectrum Watermarking for Multimedia," NEC

Research Institute Technical Report, Dec. 5, 1995, 33 pages.

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
1	BRS	L1	1	5862260.pn.	USPAT	2003/12/09 15:49	
2	BRS	L2	1	l1 and (generat$3 with bit)	USPAT	2003/12/09 15:53	
3	BRS	L3	1	l1 and (generat$3 with watermark)	USPAT	2003/12/09 16:06	
4	BRS	L4	0	l1 and (generat$3 same watermark same bit)	USPAT	2003/12/09 15:54	
5	BRS	L5	0	l1 and (watermark same bit)	USPAT	2003/12/09 15:55	
6	BRS	L6	0	l1 and (encod$3 with watermark)	USPAT	2003/12/09 16:07	
7	BRS	L8	0	l1 and (encod$3 same watermark same index$3)	USPAT	2003/12/09 16:08	
8	BRS	L7	1	l1 and (encod$3 same watermark)	USPAT	2003/12/09 16:10	
9	BRS	L9	1	l1 and (encod$3 same map)	USPAT	2003/12/09 16:13	
10	BRS	L10	0	l1 and (process$3 near5 state)	USPAT	2003/12/09 16:14	
11	BRS	L11	0	l1 and (process$3 with state)	USPAT	2003/12/09 16:14	
12	BRS	L12	1	l1 and (process$3 same state)	USPAT	2003/12/09 16:16	
13	BRS	L13	1	l1 and (spread spectrum)	USPAT	2003/12/09 16:18	
14	BRS	L14	0	l1 and (scrambl$3 with generator)	USPAT	2003/12/09 16:19	
15	BRS	L15	0	l1 and (chaotic with generator)	USPAT	2003/12/09 16:19	
16	BRS	L16	0	l1 and (scrambl$3 same generator)	USPAT	2003/12/09 16:19	
17	BRS	L17	0	l1 and (chaotic same generator)	USPAT	2003/12/09 16:19	

	Error Definition	Errors
1		0
2		0
3		0
4		0
5		0
6		0
7		0
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0